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## (54) ORGANIC NONLINEAR OPTICAL MATERIAL

(57)Abstract:

PURPOSE: To obtain a polymer having a large nonlinear optical effect by thermally curing an indoaniline derivative having a specified amino group and a specified bifunctional epoxy resin while impressing an electric field.

CONSTITUTION: A mixture of an indoaniline derivative having an amino group shown by the formula and a bifunctional epoxy resin is thermally polymerized while impressing an electric field to obtain the org. nonlinear optical material. In the formula, R1 is hydrogen or alkyls, and R2 is hydrogen or alkylamino groups. Namely, the mixture is thermally polymerized while impressing an electric field, or the two components are deposition-polymerized while impressing an electric field to form an electric field-oriented polymer. Such a polymer takes a steric structure in which the indoaniline derivative having a nonlinear optical effect is joined as a side chain to the boundary of the polymer chain formed by the epoxy resin, and hence an optical material having a large nonlinear effect is obtained.



